

Application Serial No.: 10/730,440
Office Action Date: 06/15/2005

Filed: 12/8/2003
Amendment Date: 08/12/2005

REMARKS/ARGUMENTS

Subsequent to the Office Action issued on 15 June 2005, claims 1-33 are pending in the Application. Claims 5, 10, 15, 17 and 28 have previously been withdrawn from consideration. Claims 1-4, 6-9, 11-14, 16, 18, 20-22, 24-27, 29, 31 and 33 were rejected. Claims 19, 23, 30 and 32 have been objected to.

Drawings

The drawings filed on 17 March 2005 were objected to by the examiner under 37 CFR 1.83(a) as failing to show every feature of the invention specified in the claims. It was inferred that electrodes, claimed in claim 26 must be shown or the features canceled from the claims.

Applicants respectfully assert that previously submitted Fig. 8 and accompanying changes to the specification, including identification of elements 157A and 157B, and in conjunction with the arguments hereinbelow dealing with the specification, meet the requirements set forth in 37 CFR 1.83(a). Reconsideration is respectfully requested.

Specification

The amendment filed 3/17/05 was objected to under 35 U.S.C. § 132(a) because the examiner stated that new matter was introduced into the disclosure. Specifically, it was stated that details of Fig. 8 were objected to, in that the original disclosure did not provide support for elimination of element 204 on the hub 154 in the modification of Fig. 3 to accommodate ER-fluid.

Applicant respectfully traverses this objection and requests that the examiner withdraw the objection. The language in the specification which supports elimination of element 204 is found in paragraph 0032, to wit:

Cylindrical wall 190 also preferably incorporates a non-magnetic ring 204 opposite coil 200 which is used to shape magnetic field 158 so that its lines of

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magnetic flux are substantially perpendicular to channel 176 in both first portion 194 and second portion 196.

Applicant notes that use of the word "preferably" indicates a preference or desire to include non-magnetic ring 204. However, the use of the word "preferably" also indicates that there is no requirement for the non-magnetic ring 204 to be used, and the language of the specification does not preclude elimination of the ring 204. Therefore, eliminating ring 204, as shown in Fig. 8 is allowable, and reconsideration is respectfully requested.

Claim Rejections – 35 U.S.C. § 103(a)

The Office Action rejected claims 1-4, 6-9, 11-14, 16, 18, 20-22 and 24 under 35 U.S.C. § 103(a) as being unpatentable over USPN 4946131 to Weyand (*Weyand*) in view of USPN 5878997 to Miesner (*Meisner*).

Weyand discloses a passive, calibratable damper arrangement for damping linear movements for use on a safety valve. The damper includes a damping part 36 including a hub section 34 and wall 32. Wall 32 resides within gaps filled with viscous silicone grease. Hub section 34 is mounted by a bearing or threads which allow rotary motion only. Hub section 34 has internal threads 40 that cooperate with external thread section 12 of a valve spindle. The valve spindle moves in a linear manner and the cooperating threads 12 and 40 converts the linear motion to rotary movement of the damping part 36.

Newly amended claim 1 sets forth a novel damping apparatus, comprising, *inter alia*, a linear to rotary conversion mechanism comprising a translatable member having a first attachment point, and adapted for generally linear translation in a forward and a reverse direction and a rotatable member comprising a rotatable shaft that is rotatably coupled to the translatable member; wherein translation of the translatable member in one of the forward or the reverse directions produces a forward or a reverse rotation of the rotatable member and shaft, respectively. The

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claim further sets forth, *inter alia*, a damping mechanism comprising a second attachment point, a hub that is fixed to the shaft, a means for generating a single electromagnetic field in response to an applied electrical signal that may be continuously varied in response to an input signal that is representative of a desired damping force and a fluid having a viscosity that may be continuously varied by application of the electromagnetic field that is in touching contact with the hub, wherein application of the variable electromagnetic field to the fluid produces changes in the viscosity of the fluid that in turn provides variable resistance to rotation of the hub and translation of the translatable member.

Applicant respectfully asserts that newly amended claim 1 is patentably distinguishable from *Weyand* in view of *Meisner* because neither reference teaches nor describes the above-described damping mechanism having a first attachment point and a second attachment point, as described and claimed in the instant invention. Therefore, newly amended claim 1 is allowable over the cited references.

The examiner rejected claim 1 as being unpatentable over *Weyand* in view of *Meisner*, because, in part, the examiner interpreted the shaft in *Weyand* as the component in the area of the lead line of number 34 in Fig. 1, and the hub was interpreted as the component in the area of lead arrow number 36 and lead line number 32. Applicant respectfully asserts that *Weyand* fails to disclose a rotatable shaft that is rotatably coupled to the translatable member or a damping mechanism comprising a hub that is fixed to the shaft. Specifically, applicant respectfully traverses the rejection of claim 1 based upon an interpretation of component in the area of the lead line of number 34 in Fig. 1 as being a shaft.

As the examiner is well aware, during patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir.

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2000). However, the courts have said that "the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004). Furthermore, ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, are construed to mean exactly what they say. See, e.g., *Liebel-Flarsheim Co. v. Medrad Inc.*, 358 F.3d 898, 906, 69 USPQ2d 1801, 1807 (Fed. Cir. 2004).

Applicant respectfully argues that it is not reasonable to interpret the device referred to as the component in the area of the lead line of number 34 in Fig. 1 of *Weyand* as being a 'shaft' in the plain meaning of the word, in context of the specification. A shaft is typically defined as an elongated device, having a variety of applications or functions (see, e.g. www.hyperdictionary.com; <http://www.answers.com/topic/shaft>). *Weyand* refers to item 10 as a shaft, or alternatively, as a spindle. However, item 34 in *Weyand* is referred to in the specification as a 'hub', or 'hub section'. *Weyand*'s hub 34 is structurally and functionally analogous to hub 154 of the instant invention in that both interact with a central rotating shaft to transmit torque or energy.

Therefore, claim 1 is patentably distinguishable from *Weyand* in view of *Meisner* because neither reference teaches nor describes a 'rotatable shaft that is rotatably coupled to the translatable member' as taught and claimed in claim 1 of the instant invention.

Newly amended Claims 6 and 11 are allowable for the same reasons as stated with regard to Claim 1. Claims 2-4, 7-9, 12-14, 16, 18, 20-22 and 24 each ultimately depend upon now allowable Claims 1, 6, or 11, and are therefore allowable over the prior art cited thereagainst.

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The Office Action rejected claims 25-27, 29, 31, and 33 under 35 U.S.C. § 103(a) as being unpatentable over USPN 4946131 to Weyand (*Weyand*) in view of USPN 5878997 to Miesner (*Meisner*) as applied to claim 11, and further in view of USPN 6740125 to Mosler.

Claims 25-27, 29, 31, and 33 each ultimately depend upon now allowable Claims 11, as above, and are therefore allowable over the prior art cited thereagainst.

Allowable Subject Matter

Claims 19, 23, 30, and 32 were objected to as being dependent upon a rejected base claim. It was stated each would be allowable if rewritten in independent form including all of the limitations of the base and intervening claims. Applicant appreciates acknowledgment of the allowable subject matter.

Claims 19, 23, 30, and 32 have been amended, per the above. Reconsideration of now allowable claims 19, 23, 30, and 32 is respectfully requested.

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Conclusion

Based on the above, it is respectfully submitted that all pending claims are in a condition for allowance and that same be allowed to proceed to issue.

Furthermore, upon allowance of the pending claims, Applicant respectfully requests reconsideration of claims 5, 10, 15, 17 and 28 earlier withdrawn in response to a restriction requirement and that same be found allowable and allowed to proceed to issue pursuant to 37 CFR 1.141.

Please charge any necessary fees to assignee General Motors' Deposit Account Number 070960. If the Examiner has any questions regarding the contents of the present response he may contact Applicants' attorney at the phone number appearing below.

Respectfully submitted,



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